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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,661	12/14/2000	Arturo A. Rodriguez	A-6280	8279

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EXAMINER	
AN, SHAWN S	
ART UNIT	**PAPER NUMBER**
2621	
MAIL DATE	**DELIVERY MODE**
09/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/736,661	RODRIGUEZ ET AL.	
	Examiner	Art Unit	
	Shawn S. An	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38,53-55 and 66-84* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38,53-55 and 66-84* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Reopen Prosecution

1. In view of the Pre-Brief filed on 4/03/07, and the Pre-Brief appeal conference held with the supervisor, Mehrdad Dastouri, and the primary Examiner, Shawn An, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, Appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then Appellant must pay the difference between the increased fees and the amount previously paid.

Response to Remarks

2. Applicant's remarks as filed on 4/03/07 have been carefully considered but are moot in view of the new ground(s) of rejection incorporating previously cited prior art references.

Furthermore, in response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 38, 53-55, and 66-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacInnis et al (6,570,579 B1) in view of Boyce et al (5,614,952) and Kalra et al (5,953,506).

Regarding claim 38, MacInnis et al discloses a method implemented in a DHCT (Fig. 1) for adapting to resource constraints of the DHCT, comprising:

retrieving a set of reconstructed decompressed (decoded) video data (Fig. 2, 50) from a first portion of a memory component, wherein the set of video data corresponds to a video picture (Fig. 2, Memory; col. 5, lines 5-18);

transferring the set of retrieved reconstructed decompressed (decoded) video data (Fig. 2, 50) to a display device (abs.; television display; Fig. 2, Video Out) and downscaling (52; col. 5, lines 65-67; col. 6, lines 1-9) the video picture.

MacInnis et al does not seem to particularly disclose transferring the set of retrieved reconstructed decompressed video data to a display device *while downscaling the video picture in transit to the display device*, and determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource constraint mode.

MacInnis et al also does not seem to particularly disclose the memory component storing compressed video data in a distinct second portion.

However, Kalra et al teaches a scalable media delivery system, comprising determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource constraint mode (col. 17, lines 10-55) for reproducing video images with a resolution

that is optimized to the capabilities of the client computer (col. 1, lines 66-67; col. 2, lines 1-3).

Furthermore, Boyce et al teaches digital video decoder comprising retrieving a set of reconstructed decompressed (decoded) video data from a first portion (Fig. 1, 118) of a memory component (114), wherein the memory component stores compressed video data in a distinct second portion (116), wherein the set of video data corresponds to a video picture (col. 4, lines 64-67; col. 5, lines 1-4; col. 10, lines 44-50) for efficiently managing the memory resources such as size or the bandwidth (col. 10, lines 1-4).

Moreover, Boyce et al teaches transferring the set of retrieved reconstructed decompressed (decoded) video data (from Fig. 4, 402 and 403) to a display device (TO DISPLAY) while downscaling (Reduced Resolution) the video picture in transit to the display device for implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders (Fig. 4, col. 17, lines 66-67; col. 18, lines 1-16; col. 2, lines 37-40).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a DHCT for adapting to resource constraints of the DHCT as taught by MacInnis et al to incorporate all of the teachings as taught by Kalra et al and Boyce et al for reproducing video images with a resolution that is optimized to the capabilities of the client computer, efficiently managing the memory resources such as size or the bandwidth, and implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders.

Regarding claims 53-54, MacInnis et al discloses a method implemented in a DHCT (Fig. 1) for adapting to resource constraints of the DHCT, and a DHCT comprising logic configured for:

retrieving from a first portion of a memory component (Fig. 1, VIDEO IN), a set of compressed pictures (Fig. 2, Video In entering Video Decoder);

storing in a second memory component (Fig. 2, Memory ;Fig. 1, element 28; col. 3, lines 1-3) a set of decoded pictures (from 50) corresponding to the set of compressed

pictures, each of the set of decoded pictures being at a first spatial resolution (Fig. 3, 52; col. 3, lines 1-3);

retrieving from the second memory component the set of decoded pictures (Fig. 2, 50; col. 3, lines 1-3);

transferring the set of retrieved decoded video pictures (Fig. 2, 50) to a display device (abs.; television display; Fig. 2, Video Out), and scaling (52; col. 5, lines 65-67; col. 6, lines 1-9) the video pictures.

MacInnis et al does not seem to particularly disclose determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource constraint mode, and transferring a set of retrieved decoded pictures to a display device *while scaling the video picture in transit to the display device* to a second spatial resolution without storing pictures in a memory component, wherein the second spatial resolution is smaller than the first spatial resolution.

MacInnis et al also does not seem to particularly disclose the memory component storing and retrieving a set of decoded pictures in a distinct second portion.

However, Kalra et al teaches a scalable media delivery system, comprising determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource constraint mode (col. 17, lines 10-55) for reproducing video images with a resolution that is optimized to the capabilities of the client computer (col. 1, lines 66-67; col. 2, lines 1-3).

Furthermore, Boyce et al teaches digital video decoder comprising retrieving a set of compressed pictures from a first portion (Fig. 1, 116) of a memory component (114), wherein the memory component stores decoded video pictures in a distinct second portion (116) of the memory component, wherein the set of video data corresponds to a video picture (col. 4, lines 64-67; col. 5, lines 1-4; col. 10, lines 44-50), and transferring a set of retrieved decoded pictures (Fig. 4, 402, 403) to a display device (To Display) while scaling the video picture in transit to the display device to a second spatial (reduced) resolution without storing pictures in a memory component,

wherein the second spatial resolution is smaller than the first spatial resolution (from 401 or 402) for efficiently managing the memory resources such as size or the bandwidth (col. 10, lines 1-4) and implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders (col. 17, lines 66-67; col. 18, lines 1-16; col. 2, lines 37-40).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a DHCT for adapting to resource constraints of the DHCT as taught by MacInnis et al to incorporate all of the teachings as taught by Kalra et al and Boyce et al for reproducing video images with a resolution that is optimized to the capabilities of the client computer, efficiently managing the memory resources such as size or the bandwidth, and implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders (col. 2, lines 37-40).

Regarding claims 55 and 66, MacInnis et al discloses a computer readable medium containing a program for use in a DHCT (col. 5, lines 27-30) and a method implemented in a DHCT (Fig. 1) for adapting to resource constraints of the DHCT, comprising:

receiving, in a memory component (Fig. 1, VIDEO IN), video data comprising a complete picture;

retrieving the video data from the memory component (Fig. 1,10);

transferring the retrieved video data (Fig. 2, 50) to a display device (abs.; television display; Fig. 2, Video Out), and downscaling (52; col. 5, lines 5-67; col. 6, lines 1-9) the video picture.

MacInnis et al does not seem to particularly disclose determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource constraint mode, and transferring the set of retrieved reconstructed decompressed video data to a display device *while downscaling the video picture in transit to the display device*.

However, Kalra et al teaches a scalable media delivery system, comprising determining whether a resource constrained mode is to be initiated, and responsive to determining that the resource constrained mode is to be initiated, initiating the resource

constraint mode (col. 17, lines 10-55) for reproducing video images with a resolution that is optimized to the capabilities of the client computer (col. 1, lines 66-67; col. 2, lines 1-3).

Furthermore, Boyce et al teaches transferring the set of retrieved reconstructed decompressed (decoded) video data (from Fig. 4, 402 and 403) to a display device (TO DISPLAY) while downscaling (Reduced Resolution) the video picture in transit to the display device for implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders (Fig. 4, col. 17, lines 66-67; col. 18, lines 1-16; col. 2, lines 37-40).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a DHCT for adapting to resource constraints of the DHCT as taught by MacInnis et al to incorporate all of the teachings as taught by Kalra et al and Boyce et al for reproducing video images with a resolution that is optimized to the capabilities of the client computer, and implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders.

Regarding claims 67, 74, 78, and 82, MacInnis et al discloses transmitting graphics data to the display device (Fig. 2, 50; abs.; television display; Fig. 2, Video Out).

Furthermore, Boyce et al teaches graphics data (Fig. 4, 401) being displayed contemporaneously with the scaled video data (402, 403) for implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders (col. 2, lines 37-40).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a DHCT for adapting to resource constraints of the DHCT as taught by MacInnis et al to incorporate all of the teaching as taught by Boyce et al for implementing picture-in-picture capabilities in a digital TV without incurring the cost of multiple full resolution decoders.

Regarding claims 68-69 and 83-84, MacInnis et al discloses horizontal and vertical downscaling (col. 44, lines 14-21).

Regarding claim 70, MacInnis et al discloses downscaled video pictures being not stored in the memory component, but rather stored in the memory component of Fig. 2 or Fig. 1, element 28 (col. 3, lines 1-3).

Regarding claim 71, MacInnis et al discloses transmitting graphics data to the display device (Fig. 2, 50; abs.; television display; Fig. 2, Video Out), and Boyce et al teaches graphics data (Fig. 4, 401) being displayed contemporaneously with the scaled video data (402, 403).

Regarding claims 72-73, 75-77, and 79-81, MacInnis et al discloses horizontal and vertical downscaling (col. 44, lines 14-21).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S An* whose telephone number is 571-272-7324.

6. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHAWN AN
PRIMARY EXAMINER

9/04/07